

**BY ORDER OF THE SECRETARY OF THE
AIR FORCE**

AIR FORCE INSTRUCTION 61-301

25 JULY 1994



**AIR FORCE MATERIEL COMMAND
Supplement 1**

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Scientific/Research and Development

**THE DOMESTIC TECHNOLOGY TRANSFER
PROCESS AND THE OFFICES OF RESEARCH
AND TECHNOLOGY APPLICATION**

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

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AFI 61-301 establishes policies and procedures for the domestic technology transfer (DTT) process and the offices of research and technology application (ORTAs). The instruction implements several publications: Air Force Policy Directive (AFPD) 61-3, *Domestic Technology Transfer*; *The Stevenson-Wydler Technology Innovation Act of 1980* as amended; Executive Order 12591, *Facilitating Access to Science and Technology*, 10 April 1987; and DoD 3200.12-R-4, *Domestic Technology Transfer Program*, 27 December 1988.

(AFMC) This supplement implements AFPD 61-3, *Domestic Technology Transfer*. It does not apply to Air National Guard or Air Force Reserves. Units may further supplement this command supplement, as required. If supplemented, submit a copy to AFMC TTO/TTR, 4375 Chidlaw Road, Suite 6, Wright-Patterson AFB OH 45433-5006.

AFI 61-301, 25 July 1994, is supplemented as follows:

SUMMARY OF REVISIONS

This instruction updates, clarifies, and streamlines previous guidance.

1. SAF/AQT Responsibilities.

- 1.1. Acts as the Department of Air Force Office of Primary Responsibility (OPR) for the Air Force DTT program.
- 1.2. Appoints an Air Force DTT Program Manager, who:

- Is the single focal point for the Air Force DTT program.
- Is the Agency representative to the Federal Laboratory Consortium.
- Reports to the Office of the Secretary of Defense, the General Accounting Office, and the Department of Commerce as required.

2. Commander and Director Responsibilities. Commanders and directors of all Air Force Research, Development, Test, and Evaluation (RDT&E) activities shall:

- 2.1. Encourage and support the DTT program and provide opportunity for scientists and engineers to transfer Air Force technology, expertise, processes, and services to the private sector.
- 2.2. Recognize technology transfer in the job performance evaluation of scientists and engineers.
- 2.3. Support and encourage, where feasible, the exchange of scientific and technical personnel among academic, industrial, and Federal activities and state and local government.
- 2.4. Establish Offices of Research and Technology Application (ORTAs).
- 2.5. Name representatives to the Federal Laboratory Consortium for Technology Transfer.
- 2.6. Enter into Cooperative Research and Development Agreements (CRDAs) with public and private sector organizations.
- 2.7. License, assign, or waive rights to intellectual property developed by their activities.
- 2.8. Support the active marketing of technology transfer services by their activities, including participation in economic development organizations, and contracting with partnership intermediaries.
- 2.9. Provide technical assistance to state and local government and local educational institutions.
- 2.10. (Added-AFMC)** Establish a technology transfer training program for scientists, engineers and technicians.
- 2.11. (Added-AFMC)** Assign transfer support responsibilities to functional staff organizations including but not limited to: FM, IA, JA, PA and PK.

3. ORTAs.

- 3.1. Each RDT&E activity with 200 or more full-time equivalent scientific and technical positions or at least \$150 million in annual research funds provides one or more full-time equivalent positions to staff its ORTA. Organizations with more than 400 full-time equivalent scientific or technical positions provide one full-time equivalent ORTA staff position for every 200 full-time equivalent scientific and technical positions.
 - 3.1.1. (Added-AFMC)** Each Office of Research and Technology Application (ORTA) will appoint a transfer focal point as the lead transfer agent in the ORTA.
- 3.2. Smaller RDT&E activities that have existing organizations that perform technology transfer functions may combine the ORTA in their existing organizations.
- 3.3. Commanders and directors include the ORTA staff in the activity's Management Development Program to make sure that highly competent technical managers fully participate in the technology transfer process.

3.4. Commanders and directors provide adequate resources for ORTA operations, including an operating budget equal to at least 1 percent of the activity's RDT&E budget.

4. ORTA Responsibilities.

4.1. Each ORTA shall:

- 4.1.1. Prepare application assessments of selected RDT&E projects that have commercial potential. The ORTA may hire a contractor to prepare the assessments.
- 4.1.2. Provide and disseminate information on Federally-owned or -originated products, processes, services, and facilities that may be useful to state and local government and to private industry. Activities may pay for advertising in technical, professional, or trade journals or for a contractor to publicize the products.
- 4.1.3. Cooperate with and help the Defense Technical Information Center, the National Technical Information Service, the Federal Laboratory Consortium, the National Technology Transfer Center, and other organizations that can link the activity to potential users in state and local government and private industry.
- 4.1.4. Provide technical assistance to state and local government and local educational institutions, and technical advice to private industry.
- 4.1.5. Take part, when possible, in regional, state, and local programs that facilitate or stimulate technology transfer that benefits the region, state, or locality.
- 4.1.6. Take part in public and private sector activities that provide opportunities for technology transfer. This includes local government meetings, small business conferences, and local economic development organizations.
- 4.1.7. Help program managers and technical department heads identify technologies suitable for transfer and needing application assessments.
- 4.1.8. Coordinate technology transfer with the Staff Judge Advocate (SJA) (and appropriate patent counsel as required) to determine rights to inventions, patent and licensing implications, and the commercial potential of patentable technology.
- 4.1.9. Not knowingly perform technology transfer functions that substantially compete with private sector services. The Federal Government may not compete with private industry.
- 4.1.10. Make sure that ORTA's technology transfer efforts comply with export control regulations, policies governing militarily critical technology, and other procedures and controls in Air Force regulations.
- 4.1.11. Establish technical volunteer programs and participation by technical experts as a resource complementing and supporting technology transfer in regions, states, and local communities. Work with primary and secondary schools. Provide technical consulting to state and local government.
- 4.1.12. Establish a means for coordinating with small and disadvantaged business utilization specialists to transfer technologies with commercial potential to these businesses.

4.1.13. When local Scientific and Technical Information (STINFO) personnel ask, help review drafts of technical reports, journal articles, and presentations to identify potential patentable technologies.

4.1.14. Act as the OPR for CRDAs and other technology transfer mechanisms. ***Note: Other technology transfer mechanisms include consulting, conferences and symposia, technical reports, journal articles, educational grants and awards, cost-shared contracts, and volunteer services.***

4.1.14. (AFMC) Assist scientists, engineers and technicians to document and report technology transfers.

4.1.15. (Added-AFMC) Implement the guidance and processes (as applicable) contained within the AFMC Technology Transfer Handbook. The guidance and processes within the handbook are to be used as a guide/tool by local commanders and ORTAs, except for those identified in paragraph 4.1.15.1.

4.1.15.1. (Added-AFMC) Report transfer information (metrics, business plans, successes, etc.) to the Technology Transition Office (TTO) according to the guidance and time requirements contained in the AFMC Technology Transfer Handbook. Data elements requested (metrics and business plan) are in support of Defense Technical Information Center and higher headquarters requirements.

4.1.15.1.1. (Added-AFMC) By the 5th of each month, each transfer focal point is to submit transfer activity from the previous month to AFMC TTO/TTR. Report signings of all new agreements, their investment levels, changes in status, and provide copies of the Customer Questionnaires for those agreements closed during the previous month. When there are no new signed agreements or changes in active status, then the focal point shall submit a negative report. Quarterly, each transfer focal point will report revenue activity for the previous quarter. Reports should include the amount of revenue for reimbursable (or pass through) revenues and other (royalty) revenue. Report requirements are discussed in the command transfer handbook in Sections I and R. Report Control Symbol (RCS) MTC-ST(AR) 9501, Science and Technology Mission Element Metrics applies.

4.1.15.1.2. (Added-AFMC) By 1 April of every year, each transfer focal point is to submit a *Business Plan* to the TTO. Business Plan reporting requirements are found in Section E of the AFMC Technology Transfer Handbook.

4.1.15.2. (Added-AFMC) Develop and use metrics to manage the local transfer process. The results of the Customer Questionnaire and the Air Force Partner Comments Form provide information to improve the transfer process. Reference the AFMC Technology Transfer Handbook, Section I for information regarding local metrics.

4.1.16. (Added-AFMC) Participate on the Technology Transfer Integrated Planning Team (TTIPT).

4.1.17. (Added-AFMC) Solicits and forwards nominations for technology transfer awards.

4.2. Each ORTA may:

4.2.1. Act as an Air Force Potential Contractor Program Coordinator, certifying non-Government activities for access to limited-distribution scientific and technical information.

4.2.2. Function as an Air Force Information for Industry Office.

4.2.3. Help the Small Business Innovation Research (SBIR) Program and the Small Business Technology Transfer (STTR) Program by conducting joint outreach efforts and offering technical assistance and CRDAs to SBIR/STTR firms. (CRDAs give these companies another avenue to commercialize their SBIR Phase II results and move into Phase III, as well as to commercialize related Air Force technologies.)

5. Legal Offices' Responsibilities.

5.1. The Assistant General Council (Acquisition) provides legal support services and advice concerning technology transfer.

5.1.1. The Air Force Judge Advocate General and the Assistant General Council (Acquisition) provide legal support services and assist other Air Force activities with all technology transfer issues, including CRDAs and intellectual property rights.

5.1.2. The servicing SJA and the Major Command SJA advise commanders or directors and other Air Force personnel on all legal issues regarding technology transfer. Such advice may include but is not limited to:

- Practical recommendations for structuring business relationships.
- Drafting clauses to protect the Government's interest in matters such as Government furnished property, tort liability, or data rights.
- Participating in negotiations to finalize agreements.
- Reviewing all CRDAs and supporting documentation for legal sufficiency.
- Reviewing all potential conflicts of interest involving Air Force employees associated with CRDAs.

5.1.3. The Air Force Legal Services Agency (AFLSA/JACP, including JACPB and JACPD) shall assist the servicing SJA and shall advise commanders or directors and other Air Force personnel on all legal issues regarding intellectual property. Such advice may include but is not limited to:

- Helping the SJA review CRDAs.
- Helping prepare and negotiate intellectual property documents.
- Helping personnel make informed choices about technology transfer and intellectual property matters.
- Helping personnel report inventions and identifying patentable technologies.
- Preparing and filing patent applications with the United States Patent and Trademark Office and securing issuance of patents in anticipation of, or according to, CRDAs, patent licenses, and assignments of titles to inventions.
- Determining rights in Federal employee inventions.

5.1.4. HQ USAF/JAG shall help the servicing SJA resolve potential conflicts of interest. This assistance includes but is not limited to cases where present or former Federal employees or their partners negotiate CRDAs, licenses, or assignments of titles to inventions.

6. Royalties. The Air Force retains royalties or other income it receives from the licensing or assignment of inventions under CRDAs or from inventions licensed under 35 U.S.C. 207 or other legal provisions.

The Air Force then disburses the income to individual inventor(s) and to the Air Force activity sponsoring the inventions:

6.1. The lone inventor who has assigned his or her rights in an invention to the United States receives in a calendar year:

- The total when the total royalties are less than or equal to \$1000.
- When the total royalties are greater than \$1000: \$1000 or 20 percent of the royalties, whichever is greater, up to \$10,000.

6.2. Joint inventors who have assigned their rights in an invention to the United States receive in a calendar year:

- When the total royalties are less than or equal to \$1000 times the number of inventors (for example less than or equal to \$3000 for three inventors), equal shares of the total royalties.
- When the total royalties are greater than \$1000 times the number of inventor (for example more than \$3000 for three inventors), \$1000 each or 20 percent of the royalties divided equally among the inventors, whichever is greater, up to \$100,000 each.

6.3. The balance of the royalties or other income will go to the activity where the invention occurred, and the funds so transferred to any such activity may be used or obligated by that activity during the fiscal year in which they are received or during the succeeding fiscal year as follows:

- Pay expenses for administering and licensing inventions.
- Reward scientific, engineering, and technical employees.
- Promote scientific exchange among other Air Force activities.
- Educate and train Air Force employees so they can better meet the goals of the Air Force, RDT&E mission and other Air Force activities that promote innovation and technology licensing.

6.3.1. The commander may use up to 20 percent of royalties to reward Federal employees who develop valuable inventions that cannot be commercialized for national security reasons or because they are useful only within DoD's mission. The commander or director may present these awards annually or more often. Written justification must support the award:

- A patent, a notice of allocability under the Patent Secrecy Act, or a Statutory Invention Registration.
- A description of the invention's economic benefits to the Air Force or DoD or an assessment of its market potential.

6.3.2. Any royalties not used or obligated by the end of the fiscal year succeeding the fiscal year in which they are received go to the Treasury of the United States. If, after paying inventors, royalties received in a fiscal year exceed 5 percent of the Air Force laboratories' combined budgets for that year, 75 percent of the excess goes to the Treasury of the United States. The Air Force may spend the other 25 percent for, or obligate it to, the purposes described in paragraph 6.3. during that or the next fiscal year. Any funds not spent or obligated again go to the Treasury of the United States.

6.3.3. Any payment a Federal employee receives under this instruction is in addition to the employee's regular pay or any other awards the employee receives.

6.3.4. The payment does not affect the employee's entitlement to regular pay, annuity, or award to which he or she is otherwise entitled or eligible, nor limit the amount of pay, annuity, or award.

6.3.5. Any payments an inventor periodically receives (royalties, for example) continue after the inventor leaves the laboratory or agency.

6.3.6. One person may not receive more than \$100,000 per year from royalties, unless the President approves more. The amount over \$100,000 is treated as a Presidential award under 5 U.S.C. 4505.

6.4. (Added-AFMC) All royalty or other income (from licensing or assignment of inventions) is received by Air Force Legal Services Agency (AFLSA/JACN). Payments are sent to Bolling AFB MD, Washington DC, with a cover letter stating names of the recipients and dollar amounts paid to each. Bolling AFB deposits the check in suspense account 57F3875.ROY**. Replace the asterisk with the year in which the funds are received by AFLSA/JACN (example: 57F3875.ROY95). Bolling AFB should establish this suspense account per AFM 177-370, *USAF Standard Base-Level General Accounting and Finance System: H0e69/BQ*, Section 13. This account is set up for the sole purpose of collecting and disbursing royalty income (per DFAS-DE/PG message 242357Z, May 91, Subject: Royalty and Cooperative Research and Development Agreement (CRDA) Income).

7. Special Assignments. If a contractor, grantee, or participant in a cooperative agreement with an Air Force activity assigns to the United States rights to an invention that generates royalty or other income, then the Air Force activity receives and distributes the royalties per paragraph 6. Similarly, if an Air Force employee assigns the United States rights to an invention, the Air Force activity employing the inventor receives and distributes the royalties regardless of the nature of the Air Force activity.

8. Reports. Air Force activities provide data to SAF/AQT on the progress of technology transfer. The Air Force uses this information to report to the Office of the Secretary of Defense, the Department of Commerce, and the Government Accounting Office.

9. Other Awards. Air Force RDT&E activities use existing authority, including AFR 900-4, to award cash to Federal employees for:

9.1. Inventions, innovations, or other outstanding scientific or technological contributions of value to the United States. ("Value" depends on the likelihood of commercial application or contribution to the Air Force's or Federal Government's mission.)

9.2. Exemplary activities promoting the transfer of science and technology developed within the Federal Government and used by American industry or business, universities, state or local governments, or other non-Federal parties.

10. Title to Air Force Employee Inventions. If the inventor is a Federal employee or former Federal employee who made the invention during the course of employment with the Government:

- The Air Force shall allow the inventor to retain title to any invention in which the Air Force has the right of ownership but does not intend to file a patent application or promote commercialization.

- Title to such an invention is subject to reservation by the Government of a nonexclusive, non-transferable, irrevocable, paid-up license to practice the invention or to have the invention practiced throughout the world by or on behalf of the Government.
- The Air Force may condition the inventor's right to title on the timely filing of a patent application in cases when the Government determines that it has or may have a need to practice the invention.
- An employee may ask for a rights determination per AFI 51-303, *Patents*.

11. (Added-AFMC) TECHNOLOGY TRANSITION OF-FICE (TTO) RESPONSIBILITIES:

11.1. (AFMC) Manage the technology transfer process for HQ AFMC/ST.

11.2. (AFMC) Establish and maintain the guidance and procedures pertaining to technology transfer in the command including the AFMC Technology Transfer Handbook.

11.3. (AFMC) Chair the TTIPT.

11.4. (AFMC) Collect technology transfer information from the transfer focal points and report transfer metrics as required.

11.5. (AFMC) Consolidate lab and center annual business plans into the AFMC Command Business PlanProvide a capability for easy access to Air Force technologies.

LARK G. FIESTER

The Assistant Secretary of the Air Force for Acquisition

Attachment 1 GLOSSARY OF REFERENCES, ABBREVIATIONS AND ACRONYMS, AND TERMS

References

AFI 51-303, *Patents*

AFPD 61-3, *Domestic Technology Transfer*

AFI 61-302, *Cooperative Research and Development Agreements*

AFI 61-303, *Licensing Inventions Developed Under Cooperative Research and Development Agreements*

The Stevenson-Wydler Technology Innovation Act of 1980 as amended

Executive Order 12591, *Facilitating Access to Science and Technology*, 10 April 1987

DoD 3200.12-R-4, *Domestic Technology Transfer Program*, 27 December 1988

Abbreviations and Acronyms

CRDA—Cooperative Research and Development

DTT—Domestic Technology Transfer

MAJCOM—Major Command

OPR—Office of Primary Responsibility

ORTA—Office of Research and Technology Application

RDT&E—Research, Development, Test, and Evaluation

SBIR—Small Business Innovation Research

SJA—Staff Judge Advocate

STTR—Small Business Technology Transfer

STINFO—Scientific and Technical Information

Terms

Application Assessment—A summary emphasizing potential application of technological developments having potential use by state and local government or private industry.

Cooperative Research and Development Agreement—Any agreement between one or more Air Force RDT&E activities and one or more of the following parties: other Federal agencies, units of state or local government, for profit organizations (including corporations, partnerships, limited partnerships, and industrial development organizations), public and private foundations, nonprofit organizations (including universities), or other persons (including licensees of inventions owned by the Federal agency). Under these agreements, the Air Force, through its RDT&E activities, may provide personnel, services, facilities, equipment, intellectual property, or other resources (but not funds) with or without reimbursement. One or more of the non-Air Force partners may provide personnel, services, facilities, equipment, intellectual property, or other resources (including funds) towards the conduct of specified research or development efforts consistent with the missions of the laboratory. *Note: This term does not include a contract or cooperative agreement as used in 31 U. S.C. 6303, 6304, and 6305.*

Made—The conception or first actual reduction to practice of an invention, when used in conjunction with any invention.

Office of Research and Technology Application—The Federal Technology Transfer Act of 1986 (Public Law 99-502) requires this office to oversee the Domestic Technology Transfer Program.

Practical Application—To manufacture in the case of a composition or product, to practice in the case of a process or method, or to operate in the case of a machine or system; and in each case, to establish that the invention is being utilized and that its benefits are to the extent permitted by law or Government regulations available to the public on reasonable terms.

Reviewing Official—That individual authorized by the AFMC Commander for AFMC activities, or by SAF/AQT for non-AFMC activities, to provide final review of CRDAs before they become effective.

Technology Transfer—To promote technological innovation, an Air Force RDT&E activity shares or transfers information, data, hardware, personnel, services, facilities, equipment, or other scientific or technological resources. The transfer may benefit commercial or public goals or both. The recipients may be another Federal agency; a state or local government; a for-profit organization (including corporation, partnership, limited partnership, or industrial development organization); public or private foundation; nonprofit organization (including a university); or another person.